

## How Different Are We After All: A Cross-Cultural Study Using the International Affective Picture System

**Authors :** Manish Kumar Asthana, Alicia Bundis, Zahn Xu, Braj Bhushan

**Abstract :** Despite ample cross-cultural studies with emotional valence, it is unclear if the emotions are universal or particular. Previous studies have shown that the individualist culture favors high-valence emotions compared to low-valence emotions. In contrast, collectivist culture favors low-valence emotions compared to high-valence emotions. In this current study, Chinese, Mexicans, and Indians reported valence and semantic-contingency. In total, 120 healthy participants were selected by ethnicity and matched for age and education. Each participant was presented 45 non-chromatic pictures, which were converted from chromatic pictures selected from International Affective Picture Database (IAPS) belonging to five-categories, i.e. (i) less pleasant, (ii) high pleasant, (iii) less unpleasant (iv) high unpleasant (v) neutral. The valence scores assigned to neutral, less-unpleasant, and high-pleasant pictures differed significantly between Chinese, Indian, and Mexicans participants. Significant effects demonstrated from the two-way ANOVAs, confirmed main significant effects of valence ( $F(1,117) = 24.83, p = 0.000$ ) and valence x country ( $F(2,117) = 2.74, p = 0.035$ ). Significant effects emerging from the one-way ANOVAs were followed up through Bonferroni's test post-hoc comparisons ( $p < 0.01$ ). This analysis showed significant effect of neutral ( $F(2,119) = 6.50, p = 0.002$ ), less-unpleasant ( $F(2,119) = 13.79, p = 0.000$ ), and high-unpleasant ( $F(2,119) = 5.99, p = 0.003$ ). There were no significant differences in valence scores for the less-pleasant and more-pleasant between participants from three countries. The IAPS norms require modification for their appropriate application in individualist and collectivist cultures.

**Keywords :** cultural difference, affective processing, valence, non-chromatic, international affective picture system (IAPS)

**Conference Title :** ICPNN 2020 : International Conference on Psychophysics, Neuroscience and Neuropsychology

**Conference Location :** Berlin, Germany

**Conference Dates :** July 23-24, 2020